Listing of the Claims:

1.   (Previously Presented)   A method for diagnosing an ocular disease involving neovascularization, comprising:

   (a)   placing an ocular tissue in the path of a first light beam, wherein the ocular tissue comprises retina or RPE/choroidal tissue;

   (b)   measuring the maximum intensity of a second light beam that is backscattered from the ocular tissue;

   (c)   measuring a polarization shift of the second light beam; and

   (d)   diagnosing an ocular disease involving neovascularization if the measured polarization shift corresponds to a polarization shift of polarized light backscattered off of a neovascularized tissue.

2.   (Original) The method of claim 1, wherein the method is noninvasive.

3.   (Previously Presented) The method of claim 1, wherein the ocular tissue comprises retinal tissue.

4.   (Previously Presented) The method of claim 1, wherein the ocular tissue comprises RPE/choroidal tissue.

5.   (Original) The method of claim 1, wherein the light beam includes light from a laser.

6.   (Original)   The method of claim 1, wherein the ocular disease includes diabetic retinopathy.

7.   (Original)   The method of claim 1, wherein the ocular disease includes macular degeneration.

8.   (Original) The method of claim 1, wherein the ocular disease includes cancer.

9.   (Previously Presented)   A method for diagnosing an ocular disease involving neovascularization, comprising:

(a)   placing an ocular tissue in the path of a first light beam, wherein the ocular tissue comprises retina or RPE/choroidal tissue;

(b)   measuring the maximum intensity of a second light beam that is backscattered from the ocular tissue; and

(c)   diagnosing an ocular disease involving neovascularization if the measured maximum intensity corresponds to the intensity of a neovascularized tissue.

10.   (Original) The method of claim 9, wherein the method is noninvasive.

11.   (Previously Presented)   The method of claim 9, wherein the ocular tissue comprises retinal tissue.

12.   (Previously Presented)   The method of claim 9, wherein the ocular tissue comprises RPE/choroidal tissue.

13.   (Original) The method of claim 9, wherein the light beam includes light from a laser.

14.   (Original)   The method of claim 9, wherein the ocular disease includes diabetic retinopathy.

15.   (Original)   The method of claim 9, wherein the ocular disease includes macular degeneration.

16.   (Original) The method of claim 9, wherein the ocular disease includes cancer.

17.   (Previously Presented)   A method for diagnosing an ocular disease involving neovascularization, comprising:

(a)   placing an ocular tissue in the path of a first light beam, wherein the ocular tissue comprises retina or RPE/choroidal tissue;

(b)   aligning an analyzer with the direction of a second light beam that is the most intense light beam backscattered from the ocular tissue;

(c)   measuring a polarization shift of the second light beam;

(d)   measuring the maximum intensity of the second light beam; and

(e)   diagnosing an ocular disease involving neovascularization if the measured polarization shift and maximum intensity correspond to a polarization shift and intensity of a neovascularized tissue.

18.   (Original) The method of claim 17, wherein the method is noninvasive.

19.   (Previously Presented) An apparatus for diagnosing an ocular disease, comprising:

(a) a laser; a polarizer coupled to the laser;

(b) a tissue sample holder coupled to the polarizer;

(c) an analyzer coupled to the tissue sample holder, wherein the analyzer is configured to be aligned with the direction of the most intense beam backscattered from the tissue;

(d) a detector coupled to the analyzer; and

(e) a data acquisition system coupled to the detector, the data acquisition system configured to measure a polarization shift of a light beam backscattered off of a tissue sample in the holder and diagnose an ocular disease if the measured polarization shift corresponds to a polarization shift of a neovascularized tissue, wherein the data acquisition system includes a computer and the detector.

20.   (Original) The apparatus of claim 19, wherein the detector includes a photodiode.

21.   (Original) The apparatus of claim 19, wherein the data acquisition system includes a digital meter.

22.   (Canceled)

23.   (Previously Presented) A method for detecting neovascularized tissue, comprising: placing a tissue in the path of a light beam; measuring a polarization shift of the most intense light beam backscattered from the tissue; and detecting neovascularized tissue if the measured polarization shift corresponds to a polarization shift of a neovascularized tissue.

24.   (Original) The method of claim 23, wherein the method is noninvasive.

25.   (Original) The method of claim 23, wherein the tissue comprises ocular tissue.

26.   (Original) The method of claim 25, wherein the ocular tissue comprises retinal tissue.

27.   (Original) The method of claim 25, wherein the ocular tissue comprises RPE/choroidal tissue.

28.   (Original) The method of claim 23, wherein the light beam comprises light from a laser.

29.   (Previously Presented) A method for detecting neovascularized tissue, comprising: placing a tissue in the path of a light beam; measuring the maximum intensity of a light beam backscattered from the tissue; and detecting neovascularized tissue if the measured maximum intensity corresponds to the intensity of a neovascularized tissue.

30.   (Original) The method of claim 29, wherein the method is noninvasive.

31.   (Original) The method of claim 29, wherein the tissue comprises ocular tissue.

32.   (Original) The method of claim 31, wherein the ocular tissue comprises retinal tissue.

33.   (Original) The method of claim 31, wherein the ocular tissue comprises RPE/choroidal tissue.

34.   (Original) The method of claim 29: wherein the light beam comprises light from a laser.

35.   (Previously Presented) An apparatus for diagnosing an ocular disease, comprising:

        (a) a laser;

        (b) a polarizer coupled to the laser;

        (c) a tissue sample holder coupled to the polarizer, wherein the tissue sample holder is configured to be in the path of a first light beam emitted by the laser;

        (d) an analyzer coupled to the tissue sample holder;

        (e) a detector coupled to the analyzer, wherein the detector comprises a photodiode; and

(f) a data acquisition system coupled to the detector, the data acquisition system configured to measure the maximum intensity of a second light beam backscattered from a tissue in the tissue sample holder and diagnose an ocular disease if the measured maximum intensity of the second light beam corresponds to an intensity of a neovascularized tissue, wherein the data acquisition system comprises a computer.

36.   (Canceled)

37.   (Original) The apparatus of claim 35, wherein the data acquisition system comprises a digital meter.

38.   (Canceled)

39.   (Previously Presented)   An apparatus for detecting neovascularized ocular tissue, comprising:

(a) a laser;

(b) a polarizer coupled to the laser;

(c) a tissue sample holder coupled to the polarizer, wherein the tissue sample holder is configured to be in the path of a first light beam emitted by the laser;

(d) an analyzer coupled to the tissue sample holder;

(e) a detector coupled to the analyzer, wherein the detector comprises a photodiode; and

(f) a data acquisition system coupled to the detector, the data acquisition system configured to measure a polarization shift of a second light beam backscattered from a tissue in the tissue sample holder and diagnose an ocular disease if the measured polarization shift of the second light beam corresponds to a polarization shift of a neovascularized ocular tissue.

40-41. (Canceled)

42.   (Previously Presented)   An apparatus for detecting neovascularized ocular tissue, comprising:

(a) a laser;

(b) a polarizer coupled to the laser;

(c) a tissue sample holder coupled to the polarizer, wherein the tissue sample holder is configured to be in the path of a first light beam emitted by the laser;

(d) an analyzer coupled to the tissue sample holder;

(e) a detector coupled to the analyzer, wherein the detector comprises a photodiode; and

(f)   a data acquisition system coupled to the detector, the data acquisition system configured to measure the maximum intensity of a second light beam backscattered from a tissue in the tissue sample holder and diagnose an ocular disease if the measured maximum intensity of the second light beam corresponds to an intensity of a neovascularized ocular tissue.

43-44. (Canceled)